CHAPTER 1

INTRODUCTION

1.1 Background

Construction industry involves a process of constructing a building and an infrastructure such construction of residential, bridge erection, paving of road, excavations and demolition. Construction is a hazardous industry that consists of many activities involving construction, alteration and repair. Thus, a successful construction project should be executed with an effective planning from the early stages of construction. Effective planning involves several stages of execution such as scheduling, budgeting, construction (site work) and completion. Usually for construction of new project or alteration of existing structure requires preparation of contract document. The document provides of pictorial representation of the construction work consists of working drawing, schedule of work, bill of quantities and specification.

Thus, it is vital for contractor to make sure that they abide the contact document until the completion date of project without any problem such as delay in works and overrun cost. Cost overrun was considered a big problem in construction industry, which hinders project's progress, since it decreases the contractor’s profit leading to huge losses leaving the project in a big trouble. Cost overrun is defined as excess of actual cost over budget. Cost overrun is also sometimes called "cost escalation," "cost increase," or "budget overrun." (Al-Najjar, 2008). Thus, this study will primarily focus on problem with cost estimation in a construction project to provide holistic understanding of cost overruns.

Accuracy in cost estimation is important because being able to make accurate estimates is the key to delivering a solid project plan since construction project is a complex project that prone to effect of risk and uncertainty. There are several factors that contribute to errors in cost estimation such as in conventional estimating techniques, the expected range of accuracy in construction is determined by the project plans and other specification provided to the cost estimator. Thus, the accuracy of the cost estimation basically depends on the details given. In addition, conventional costs estimations primarily rely on two-dimensional (2D) drawing measurement have high possibility for inefficiency, ambiguity and error. Thus, it is important to identify factors that contribute to errors during budgeting stages in construction project so that the possible solution can be adapted to overcome this problem. In order to curb excessive budget overruns in cost estimation the experiences of industrial worker were analyse.

1.2 Problem Statement

A construction project can be consider successful if the project have achieved the goals such as the construction project met the technical performance, maintained end date, complete without major safety issues and cost remained in budgetary cost. However, sometime circumstances occur and caused some project to go astray which caused problems such as cost overruns. The cost overruns as the difference between the original cost estimation of project and actual construction cost on completion of works of a commercial sector construction project defined by (Al-Najjar, 2008). Unexpected cost incurred in excess of budgeted cost due to underestimate actual amount of cost during early stage of construction can impact the future financial viability of the company or organization thus, it is vital for a construction project remained within budgetary cost until the completion date.

The increasing complexity of infrastructure projects and the environment within which they are constructed place greater demand on construction managers to deliver projects on time, within the planned budget and with high quality (Enshassi, Lisk, Sawalhi, & Radwan, 2003). Thus, cost overruns need a constructive analysis to analyse various reasons of cost overrun and possible solution to overcome this problem. The purpose of this study is to identify and analyse factors of cost overrun and the possible solutions for cost overrun in order to minimize these issues. The results will be obtained

by analysing the experience of experts in construction industry for better understanding of cost overruns.

1.3 Objective of Study

The objectives of this study are:

i. To study factors of cost overrun and the possible solution of cost overrun in construction projects
ii. To identify and analyse the most influence factors in cost overruns
iii. To identify and analyse possible solutions to minimize or control cost overruns

1.4 Scope of Study

In this study, the scope of research have been limited to cost overrun that focused on factors of cost overrun, the most influence factors of cost overrun and solution to cost overrun. This research was conducted at Pahang only since it is not feasible for this study to survey every state in Malaysia within the provided span of time. To obtain more information for this research interview and questionnaire was distributed to client, consultants and construction contractor from Grade 6 to Grade 7 in Pahang. Besides analysing data of cost overrun that was gathered from experience of experts in industry through interview and questionnaire, data also was recorded by reviewed of articles and past research. These parameters are important in order to come out with more effective cost estimation in construction industry. All findings and recommendation from study may not represent researchers true view as researcher cannot cover all due to time and cost constraint.

1.5 Methodology

The research of this thesis largely adopts a quantitative approach with some elements of qualitative approach especially in the last stages of the research. Quantitative approach is used to gather factual data and to study relationships between facts and how such facts and relationships accord with theories and the findings of any